



PTO/SB/21 (04-07)

1637

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/507,267
Filing Date	April 6, 2005
First Named Inventor	Lukhtanov, Eugeny A.
Art Unit	1637
Examiner Name	Mark Staples
Attorney Docket Number	17682A-005010US

**ENCLOSURES (Check all that apply)**

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input checked="" type="checkbox"/> Information Disclosure Statement (5 pgs)<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Reply to Missing Parts/ Incomplete Application<br><input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br>Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____<br><input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>References: 20<br>Return Postcard |
|---|---|--|

Remarks

The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	Zhe Wu		
Date	August 17, 2007	Reg. No.	52,377

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Jane Montes	Date	August 17, 2007

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P.O. Box 1450  
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On August 17, 2007

TOWNSEND and TOWNSEND and CREW LLP  
By: [Signature]

PATENT  
Attorney Docket No.: 17682A-005010US  
Client Reference No.: 156-PCT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Eugeny A. Lukhtanov et al.

Application No.: 10/507,267

Filed: April 6, 2005

For: **NEGATIVELY CHARGED  
MINOR GROOVE BINDERS**

Examiner: Mark Staples

Art Unit: 1637

**INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references [in compliance with the requirements of 37 CFR §1.98(a)(2)] are enclosed. It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement.

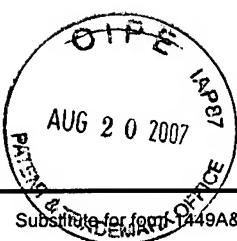
However, if a fee is required, the Commissioner is authorized to deduct such fee from the undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Zhe Wu  
Reg. No. 52,377

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61125391 v1



<b>Substitute for form 1449A&amp;B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/507,267
				Filing Date	April 6, 2005
				First Named Inventor	Lukhtanov, Eugeny A.
				Art Unit	1637
				Examiner Name	Mark Staples
Sheet	1	of	3	Attorney Docket Number	17682A-005010US

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code <sup>2</sup> (if known)			
	AA	US 5,237,101	08-17-1993	Nicolaou et al.	
	AB	US-5,446,137	08-29-1995	Maag et al.	
	AC	US-5,493,012	02-20-1996	Rokita et al.	
	AD	US-5,786,138	07-28-1998	Swenson	
	AE	US-5,801,155	09-01-1998	Kutyavin et al.	
	AF	US 5,955,590	09-21-1999	Levina et al.	
	AG	US-6,084,102	07-04-2000	Kutyavin et al.	
	AH	US-6,312,894 B1	11-06-2001	Hedgpeth et al.	
	AI	US-6,426,408 B1	07-30-2002	Kutyavin et al.	
	AJ	US-6,486,308 B2	11-26-2002	Kutyavin et al.	
	AK	US-6,492,346 B1	12-10-2002	Hedgpeth et al.	
	AL	US-6,884,584 B2	04-26-2005	Hedgpeth et al.	
	AM	US-7,205,105 B2	04-17-2007	Afonina et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	AN	WO	91/06556	A1	05-16-1991			<input type="checkbox"/>
	AO	WO	92/20698	A1	11-26-1992			<input type="checkbox"/>
	AP	WO	95/29184	A1	11-02-1995			<input type="checkbox"/>

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AQ	AFONINA, Irina et al.; "Sequence-specific arrest of primer extension on single-stranded DNA by an oligonucleotide-minor groove binder conjugate"; 1996, PNAS, Vol. 93, pp. 3199-3204.	<input type="checkbox"/>

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Sheet	2	of	3	Attorney Docket Number	17682A-005010US

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	AR	AFONINA, Irina et al.; "Efficient priming of PCR with short oligonucleotides conjugated to a minor groove binder"; 1997, <u>Nucleic Acids Research</u> , Vol. 25, No. 13, pp. 2657-2660.	<input type="checkbox"/>	
	AS	BAILLY, Christian et al.; "DNA Recognition by Intercalator-Minor-Groove Binder Hybrid Molecules"; 1991, <u>Bioconjugate Chemistry</u> , Vol. 2, No. 6.	<input type="checkbox"/>	
	AT	BAILLY, Christian et al.; "Sequence-Specific DNA Minor Groove Binders. Design and Synthesis of Netropsin and Distamycin Analogues"; 1991, <u>Bioconjugate Chemistry</u> , Vol. 9, No. 5.	<input type="checkbox"/>	
	AU	BOGER, Dale L. et al.; "CC-1065 and the duocamycins: Unraveling the keys to a new class of naturally derived DNA alkylating agents"; 1995, <u>PNAS</u> , Vol. 92, pp. 3642-3649.	<input type="checkbox"/>	
	AV	KUMAR, Surat et al.; "Solution structure of a highly stable DNA duplex conjugated to a minor groove binder"; 1998, <u>Nucleic Acids Research</u> , Vol. 26, No. 3, pp. 831-838.	<input type="checkbox"/>	
	AW	KUTYAVIN, Igor V. et al.; "Oligonucleotides with conjugated dihydropyrroloindole tripeptides: base composition and backbone effects on hybridization"; 1997, <u>Nucleic Acids Research</u> , Vol. 25, No. 18, pp. 3718-3723.	<input type="checkbox"/>	
	AX	LUKHTANOV, Eugeny A. et al.; "Oligodeoxyribonucleotides with Conjugated Dihydropyrroloindole Oligopeptides: Preparation and Hybridization Properties"; 1995, <u>Bioconjugate Chemistry</u> , Vol. 6, pp. 418-426.	<input type="checkbox"/>	
	AY	LUKHTANOV, Eugeny A. et al.; "Rapid and efficient hybridization-triggered crosslinking within a DNA duplex by an oligodeoxyribonucleotide bearing a conjugated cyclopropapyrroloindole"; 1996, <u>Nucleic Acids Research</u> , Vol. 24, No. 4, pp. 683-687.	<input type="checkbox"/>	
	AZ	LUKHTANOV, Eugeny A. et al.; "Minor groove DNA alkylation directed by major groove triplex forming oligodeoxyribonucleotides"; 1997, <u>Nucleic Acids Research</u> , Vol. 25, No. 24, pp. 5077-5084.	<input type="checkbox"/>	
	BA	LUKHTANOV, Eugeny A. et al.; "Sequence and Structure Dependence of the Hybridization-Triggered Reaction of Oligonucleotides Bearing Conjugated Cyclopropapyrroloindole"; <u>Journal of the American Chemical Society</u> , Vol 119, No. 27, pp. 6214-6225.	<input type="checkbox"/>	
	BB	LUKHTANOV, Eugeny A. et al.; "Direct, Solid Phase Assembly of Dihydropyrroloindole Peptides with CONjugated Oligonucleotides"; <u>Bioconjugate Chemistry</u> , Vol. 7, No. 5, pp. 564-567.	<input type="checkbox"/>	
Examiner Signature				Date Considered

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	BC	O'DONNELL, Maryanne J. et al.; "Synthesis and Properties of a Hoechst-Like Minor-Groove Binding Agent Tethered to an Oligodeoxynucleotide"; 1995, <u>Bioorganic &amp; Medicinal Chemistry</u> , Vol. 3, No. 6, pp. 743-750.	<input type="checkbox"/>	
	BD	ROBLES, Jordi et al.; "A Parallel-Standed DNA Triplex Tethering a Hoechst 33258 Analogue Results in Complex Stabilization by Simultaneous Major Groove and Minor Groove Binding"; 1996, <u>J. Am. Chem. Soc.</u> , Vol. 118, pp. 5820-5821.	<input type="checkbox"/>	
	BE	ROBLES, Jordi et al.; "DNA Triplex Stabilization Using a Tethered Minor Groove Binding Hoechst 33258 Analogue"; 1997, <u>J. Am. Chem. Soc.</u> , Vol. 119, pp. 6014-6021.	<input type="checkbox"/>	
	BF	SINYAKOV, Alexander N. et al.; "Exceptional and Selective Stabilization of A-T Rich DNA-DNA Duplexes by N-Methylpyrrole Carboxamide Peptides Conjugated to Oligodeoxynucleotides"; 1995, <u>The Journal of the American Chemical Society</u> .	<input type="checkbox"/>	
	BG	WIEDERHOLT, Kristin et al.; "DNA-Tethered Hoechst Groove-Binding Agents: Duplex Stabilization and Fluorescence Characteristics"; 1996, <u>American Chemical Society</u> .	<input type="checkbox"/>	

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